

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 2/22/05 Serial # 10/715,227 Priority Application Date _____
 Your Name M. Lewis Examiner # _____
 AU 2822 Phone 272-1831 Room 5A30
 In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature _____ Other _____
 Secondary Refs ☒ Foreign Patents _____
 Teaching Refs _____

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 1-12 & 14

Problem: see pages 2-6
solution: " " 6-8

- Si Nitride ARC
- Surface Roughness Features - Smooth
- Few Defects
- Two Layers

Staff Use Only

Searcher: HARRISON Type of Search _____
 Searcher Phone: 22511 Structure (#) _____
 Searcher Location: STIC-EIC2800, JEF-4B68 Bibliographic X
 Date Searcher Picked Up: 3-16-05 Litigation _____
 Date Completed: 3-16-05 Fulltext _____
 Searcher Prep/Rev Time: 25 Patent Family _____
 Online Time: 116 Other _____

Vendors

STN X
 Dialog X
 Questel/Orbit _____
 Lexis-Nexis _____
 WWW/Internet _____
 Other _____

130997

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date	8/27/04	Serial #	10/715,227	Priority Application Date	
Your Name	M. Lewis	Examiner #			
AU	9822	Phone	272-1838	Room	5A30
In what format would you like your results? Paper is the default. <input checked="" type="radio"/> PAPER <input type="radio"/> DISK <input type="radio"/> EMAIL					

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs <input checked="" type="checkbox"/>	Nonpatent Literature <input type="checkbox"/>	Other <input type="checkbox"/>
Secondary Refs <input checked="" type="checkbox"/>	Foreign Patents <input type="checkbox"/>	
Teaching Refs <input type="checkbox"/>		

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 1-12 & 14

Problem: See paragraphs 2-15

Solution: " " 16-29

Please look for the multiple ranges that are disclosed.

Staff Use Only

Searcher: Scott Hertog

Searcher Phone: 22663

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 9/2/4

Date Completed: 9/3/4

Searcher Prep/Rev Time: 2.40

Online Time: 8:07

Type of Search

Structure (#) _____

Bibliographic ☒Litigation ☐Fulltext ☒Patent Family ☐Other ☐**Vendors**STN ☒Dialog ☐Questel/Orbit ☐Lexis-Nexis ☐WWW/Internet ☐Other ☐

16mar05 20:21:08 User259284 Session D3122.3

File 2:INSPEC 1969-2005/Feb W4
 (c) 2005 Institution of Electrical Engineers

Set	Items	Description
S1	14677	CI=(N BIN(S)SI BIN)
S2	11429	CI=(N SS(S)SI SS)
S3	998	CI=(N EL(S)SI EL)
S4	992	CI=(N DOP(S)SI EL)
S5	1346	CI=(N DOP(S)SI BIN)
S6	47	CI=(N EL(S)SI DOP)
S7	745	CI=(N BIN(S)SI DOP)
S8	767	CI=(N SS(S)SI DOP) (S)NE=3
S9	323	CI=(N SS(S)SI DOP) (S)NE=4
S10	101	CI=(N SS(S)SI DOP) (S)NE=5
S11	29	CI=(N SS(S)SI DOP) (S)NE=6
S12	18	CI=(N SS(S)SI DOP) (S)NE=7
S13	17	CI=(N DOP(S)SI SS) (S)NE=7
S14	22	CI=(N DOP(S)SI SS) (S)NE=6
S15	76	CI=(N DOP(S)SI SS) (S)NE=5
S16	286	CI=(N DOP(S)SI SS) (S)NE=4
S17	981	CI=(N DOP(S)SI SS) (S)NE=3
S18	23112	S1:S17
S19	28	S18 AND (BARC OR BARCS OR DARC OR DARCS)
S20	24	S19/1999-2005
S21	4	S19 NOT S20
S22	38630	R1:R3 OR R5 OR R7 OR R8 OR ANTIREFLECT?????? OR NONREFLEC- T????? OR ANTI()REFLECT????? OR AR(W)(COAT????? OR LAYER?- ???) OR ANTIGLAR????? OR ANTI()GLAR????? OR MATTE
S23	0	S22 AND GLARESCREEN?
S24	9	GLARE()SCREEN?
S25	38635	S22:S24
S26	621	S18 AND S25
S27	594	S26 NOT S19
S28	265	S27/1999-2005
S29	50563	R1:R5
S30	329	S27 NOT S28
S31	16	29AND30

10/715,227

CAS/STN FILE 'WPIX, HCAPLUS' ENTERED AT 17:30:27 ON 16 MAR 2005

L1 2 S US20040099927/PN
 L2 SEL PLU=ON L1 1- IC RN : 13 TERMS
 L3 1078053 S L2
 L4 2 S L1 AND L3
 L5 9 S (US5378659 OR US5637190 OR US5539249 OR US5700741 OR US5698352)/PN
 L6 SEL PLU=ON L5 1- PN : 34 TERMS

FILE 'DPCI' ENTERED AT 17:46:39 ON 16 MAR 2005

L7 162 S L6/PN.D
 L8 SEL PLU=ON L7 1- PRN : 228 TERMS

FILE 'WPIX, HCAPLUS' ENTERED AT 17:47:27 ON 16 MAR 2005

L9 355 S L8
 L10 208 S L9 AND (FLAT OR SMOOTH##### OR MATTE#####
 OR ARC OR DARC OR ANTIREFLECT##### OR ANTI REFLECT#####)
 L11 42 S L9 AND (DEFECT##### OR CONTAMINA##### OR ROUGH##### OR PARTICLE OR PARTICULAT#####
 OR NANOPARTIC##### OR MICROPARTIC#####)
 L12 2 S L9 AND (DIRT#### OR DUST#### OR DECONTAMINA##### OR PURIF#####)

FILE 'REGISTRY' ENTERED AT 17:51:42 ON 16 MAR 2005

L13 5434 S SI/ELS,MAC AND NITRIDE
 L14 2631 S SI/ELS,MAC AND (OXYNITRIDE OR NITRIDE(A)OXIDE)
 L15 1254 S N.O.SI/MF OR N.SI/MF OR N O SI/ELF OR N SI/ELF
 L16 5628 S (L13 OR L14 OR L15)

FILE 'WPIX, HCAPLUS' ENTERED AT 17:54:38 ON 16 MAR 2005

L17 166 S L9 AND (L16 OR SIN OR SI3N4 OR (SI OR
 SILICON) (2A) (NITRID##### OR OXYNITRIDE) OR SION OR OXYNITRIDE)
 L18 17 S L10 AND L11
 L19 109 S L10 AND L17
 L20 13 S L11 AND L17
 L21 142 S (L11 OR L12) OR (L18 OR L19 OR L20)
 L22 12992 S (DEFECT##### OR CONTAMINA#####) (5A) (DENSIT##### OR AMOUNT)
 L23 0 S L21 AND L22
 L24 0 S L9 AND L22
 L25 1 S SURFACE DEFECT AND L21
 L26 1 S SURFACE DEFECT AND L9
 L27 1 S (L25 OR L26)
 L28 4 S ?PARTICULAT? AND L21
 L29 25 S PARTICLE? AND L21
 L30 24 S (L28 OR L29) NOT L27
 L31 21 S L21 AND (DEFECT##### OR SMOOTH##### OR ROUGH#####)
 L32 3 S L21 AND ?PURG?
 L33 66 S L21 AND (PECVD OR PLASMA OR PE)
 L34 133 S L21 AND (?LAYER? OR FILM OR ?COAT?)
 L35 41 S L21 AND (SURFACE OR INTERFAC##### OR SMOOTH#####)
 L36 195 S (L11 OR L12) OR (L18 OR L19 OR L20 OR L21)
 OR L17 OR (L25 OR L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35)
 L37 45 S L36 AND (TWO OR 2 OR SECOND OR 2ND OR PAIR#### OR BOND##### OR BI OR DI OR MULTI OR
 MULTIPLE) (2A) (FILM OR ?LAYER? OR ?COAT? OR WAFER)
 L38 52 S L36 AND ?MASK?
 L39 54 S L36 AND (INERT OR HE OR NE OR HELIUM OR NEON OR AR OR ARGON OR KR OR KRYPTON OR XE OR XENON
 OR (ARGON OR KRYPTON OR XENON OR HELIUM OR NEON)/CN)
 L40 5 S L36 AND NOBLE
 L41 12 S L36 AND ROUGHNESS
 L42 0 S L36 AND TOPOLOG#####
 L43 3 S L36 AND PURG#####
 L44 135 S L12 OR L18 OR L20 OR (L25 OR L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32) OR L35 OR (L37
 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43)
 L45 76 S L44 AND (ARC OR DARC OR BARC OR ANTIREFLECT##### OR ANTI REFLECT##### OR MATTE)
 L46 49 S L45 AND 1999-2005/PY
 L47 73 S L45 AND 1999-2005/PY
 L48 12 S L45 AND 1997-1998/PY
 L49 34 S L45 AND 1997-1998/PY
 L50 14 S L45 AND 1995-1996/PY
 L51 2 S L45 AND 1995-1996/PY
 L52 1 S L45 AND 1993-1994/PY
 L53 3 S L45 AND 1993-1994/PY
 L54 2 S L45 AND 1990-1992/PY
 L55 0 S L45 AND 1990-1992/PY
 L56 0 S L45 AND 1988-1989/PY
 L57 0 S L45 AND 1988-1989/PY
 L58 27 S L45 NOT L46
 L59 3 S L58 NOT L47
 L60 46 S (L48 OR L49 OR L50 OR L51 OR L52 OR L53 OR L54 OR L55 OR L56 OR L57) OR L59
 L61 143 S L22 AND (ARC OR DARC OR BARC OR ANTIREFLECT##### OR ANTI REFLECT##### OR MATTE)
 L62 143 S L61 NOT L60
 L63 24 S L62 AND 2003-2005/PY, PRY
 L64 119 S L62 NOT L63

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FILE 'WPIX, HCAPLUS' ENTERED AT 18:22:30 ON 16 MAR 2005

L65 97 S L64 NOT (2000-2002)/PY,PRY
 L66 91 S L65 NOT 1999/PRY,PY
 L67 99 S L66 OR (L61 AND 1996-1998/PRY,PY)
 L68 99 S L67 OR (L61 AND 1993-1995/PRY,PY)
 L69 99 S L68 OR (L61 AND 1990-1992/PRY,PY)
 L70 99 S L69 OR (L61 AND 1989-1989/PRY,PY)
 L71 99 S L69 OR (L61 AND 1986-1989/PRY,PY)
 L72 2 S L71 AND (L16 OR SIN OR SI3N4 OR (SI OR SILICON) (2A) (NITRID##### OR OXYNITRIDE) OR SION OR OXYNITRIDE)
 L73 154098 S (SURFACE OR INTERFAC#####) (3A) (DEFECT##### OR FLAW##### OR ROUGH##### OR IRREGULAR#####)
 L74 2921 S L73 AND (L16 OR SIN OR SI3N4 OR (SI OR SILICON) (2A) (NITRID##### OR OXYNITRIDE) OR SION OR OXYNITRIDE)
 L75 500 S L74 AND (FLAT OR ARC OR DARC OR BARC OR ANTIREFLECT##### OR ANTI REFLECT##### OR MATTE OR PHOTO#####)
 L76 493 S L75 NOT (L60 OR L72)
 L77 16 S L76 AND FEATURES
 L78 271 S L76 AND ROUGHNESS
 L79 164 S L76 AND DEFECT#####
 L80 55 S L76 AND RATE
 L81 17 S L76 AND AMOUNT
 L82 43 S L76 AND DENSITY
 L83 59 S L76 AND SMOOTH#####
 L84 27 S L76 AND ?PARTICLE?
 L85 0 S L76 AND ?PARTICULAT?
 L86 2 S L76 AND DUST####
 L87 2 S L76 AND DIRT####
 L88 29 S L76 AND CLEAN#####
 L89 0 S L76 AND DECONTAMINA#####
 L90 12 S L76 AND CONTAMINA#####
 L91 1 S L76 AND PURIF#####
 L92 2 S L76 AND GETTER#####
 L93 61 S L76 AND (IMBED##### OR EMBED##### OR ABSOR##### OR ADSOR#####)
 L94 445 S (L77 OR L78 OR L79 OR L80 OR L81 OR L82 OR L83 OR L84 OR L85 OR L86 OR L87 OR L88 OR L89 OR L90 OR L91 OR L92 OR L93)
 L95 27 S L94 AND SECOND
 L96 43 S L94 AND TWO
 L97 64 S L94 AND SEMICOND##### (3A) (DEVICE OR STRUCTURE OR ELEMENT OR WAFER OR CHIP OR MICROCHIP OR DIE OR MODULE)
 L98 36 S L94 AND WAFER#####
 L99 119 S L94 AND (DIE OR CHIP OR MICROCHIP OR (SI OR SILICON OR SEMICONDUCT#####) (2A) SUBSTRATE)
 L100 33 S (L95 OR L96) AND (L97 OR L98 OR L99)
 L101 32 S L97 AND (L98 OR L99)
 L102 13 S L98 AND L99
 L103 207 S (L95 OR L96 OR L97 OR L98 OR L99 OR L100 OR L101 OR L102)
 L104 207 S L103 AND (SURFACE OR INTERFAC##### OR ROUGH##### OR DEFECT#####)
 L105 64 S L104 AND 2003-2005/PRY,PY
 L106 95 S L104 AND 2000-2002/PRY,PY
 L107 35 S L104 AND 1999/PRY,PY
 L108 56 S L104 NOT (L105 OR L106 OR L107)
 L109 58 S L104 AND 1994-1998/PRY,PY
 L110 18 S L104 AND 1990-1993/PRY,PY
 L111 76 S (L108 OR L109 OR L110)
 L112 6 S L111 AND (TWO OR 2 OR SECOND OR DOUBLE OR ANOTHER) (1W) LAYER####
 L113 16 S L111 AND WAFER#####
 L114 22 S (L112 OR L113)

FILE 'REGISTRY' ENTERED AT 19:13:42 ON 16 MAR 2005

L115 8743 S SI/ELS,MAC AND N/ELS,MAC AND (CARBIDE OR OXIDE OR NITRIDE OR SILICIDE OR OXYNITRIDE)

FILE 'HCAPLUS' ENTERED AT 19:14:20 ON 16 MAR 2005

L116 4795 S L115 AND (ARC OR DARC OR BARC OR FLAT##### OR MATTE OR ?REFLECT?)
 L117 737 S L115 AND BLACK
 L118 5498 S (L116 OR L117)
 L119 174 S L118 AND DEFECT#####
 L120 177 S L118 AND ROUGH#####
 L121 23 S L118 AND IRREGULAR#####
 L122 1809 S L118 AND SURFACE
 L123 393 S L118 AND INTERFACE?
 L124 361 S L118 AND ?PARTICLE?
 L125 27 S L118 AND ?PARTICULAT?
 L126 96 S L118 AND ?CLEAN?
 L127 254 S (L122 OR L123) AND (L119 OR L120 OR L121)
 L128 198 S (L122 OR L123) AND (L124 OR L125 OR L126)
 L129 95 S L119 AND (L120 OR L121 OR L122 OR L123 OR L124 OR L125 OR L126)
 L130 429 S (L127 OR L128 OR L129)
 L131 29 S L130 AND (?RESIST? OR ?MASK? OR ?RETICLE?) (6A) (BARC OR ARC OR DARC OR FLAT##### OR MATTE OR ?REFLECT? OR BLACK)

FILE 'REGISTRY' ENTERED AT 15:27:33 ON 02 SEP 2004

L1 454 S (N.SI/MF OR N SI/ELF) AND NC=1
L2 395 S (N.O.SI/MF OR N O SI/ELF) AND NC=1

INDEX 'HCAPLUS, INSPEC, COMPENDEX, SCISEARCH, PASCAL, ELCOM, ENERGY, AEROSPACE, DISSABS, METADEX, ANTE, NTIS, CEABA-VTB, CONFSCI, EMA, ENTEC, FEDRIP, RDISCLOSURE, SIGLE' ENTERED AT 15:27:40 ON 02 SEP 2004

SET PLU OFF ABB=ON
L3 QUE ANTIREFLECT? OR ANTI(W) REFLECT? OR ANTIGLAR### OR
ARC OR ARL OR AR OR DARC OR BARC OR BAR OR (PHOTOABSOR##### OR
((PHOTO# OR RADIATION OR LIGHT) (W) ABSOR#####) (W) (MATERIAL?
OR FILM# OR COAT#### OR LAYER####) OR 4280X/CC OR U11-C04A1H/MC
L4 QUE ABB=ON (L3 OR SURF?) (2A) (DEFCT OR DEFECT? OR SMOOTH? OR
PARTICLE# OR ROUGH?) OR STANDING WAVE# OR HALAT? OR HALO OR
HALOS OR HALOES
L5 QUE SIN OR (SI OR SILICON) (A) (N OR NITRIDE#) OR L1 OR
SIN INT/CHI OR SI3N4/CHI
L6 QUE SIO(W) N OR (SI OR SILICON) (A) ((O OR OXIDE) (A) (N
OR NITRIDE)) OR L2 OR SION INT/CHI OR SI(S)O(S)N/CHI(L)ELC=3
L7 QUE L3 AND L4 AND L5
L8 QUE L3 AND L4 AND L5 AND L6

FILE 'HCAPLUS' ENTERED AT 15:50:11 ON 02 SEP 2004

L9 24 S L3 AND L4 AND L5 AND L6
L10 5 S L9 NOT P/DT NOT PD>19980610
L11 16 S L9 AND P/DT
L12 1 S L11 AND (WO OR US)/AC(P) (AD<19980610)
L18 8783 S SIO(W)N OR (SI OR SILICON) (A) ((O OR OXIDE# OR OXYNITRIDE#) (A) (N OR
NITRIDE# OR OXYNITRIDE#)) OR L2
L19 84631 S SIN OR SI3N4 OR L1
L20 16 S L18 AND L19 AND L3 AND L4
L21 1 S L20 NOT L9

FILE 'REGISTRY' ENTERED AT 10:23:04 ON 03 SEP 2004
L1 0 S 40-65 SI/MAC AND 2-56 O/MAC AND 5-33 N/MAC AND 3/ELC AND NC=1
L3 3 S 40-65 SI/MAC AND 2-56 O/MAC AND 5-33 N/MAC
FILE 'HCAPLUS' ENTERED AT 10:24:00 ON 03 SEP 2004
L4 2 S L3
FILE 'REGISTRY' ENTERED AT 10:26:24 ON 03 SEP 2004
L5 395 S (N.O.SI/MF OR N O SI/ELF) AND NC=1
FILE 'HCAPLUS' ENTERED AT 10:26:50 ON 03 SEP 2004
L6 1679 S L5
L7 199759 S ANTIREFLECT? OR ANTI(W)REFLECT? OR ANTIGLAR### OR ARC OR ARL OR
DARC OR BARC OR BAR OR (PHOTOABSOR##### OR ((PHOTO# OR RADIATION OR
LIGHT) (W)ABSOR##### OR AR)) (W) (MATERIAL? OR FILM# OR COAT#### OR
LAYER####)
L8 102 S L6 AND L7
L9 42 S L8 AND AD<19980610 AND P/DT
L10 19 S L8 NOT P/DT NOT PD>19980610
L11 32 S L8 AND PD<19980610 AND P/DT
L12 8 S L9 NOT L11 AND (WO OR US)/AC
L13 40 S (L11 OR L12)
L14 305260 S (FILM# OR SURF? OR LAYER?) (2A) (DEFCT OR DEFECT? OR SMOOTH? OR
PARTICLE# OR ROUGH?) OR HALAT? OR HALO OR HALOS OR HALOES
L15 0 S L13 AND L14
L16 2 S L13 AND (DEFCT OR DEFECT? OR SMOOTH? OR PARTICLE# OR ROUGH? OR
HALAT? OR HALO OR HALOS OR HALOES)

FILE 'REGISTRY' ENTERED AT 12:04:36 ON 03 SEP 2004

SET ABB=ON PLU=ON

L1 454 S (N.SI/MF OR N SI/ELF) AND NC=1

L2 395 S (N.O.SI/MF OR N O SI/ELF) AND NC=1

INDEX 'HCAPLUS, INSPEC, COMPENDEX, SCISEARCH, PASCAL, ELCOM, ENERGY, AEROSPACE, DISSABS, METADEX, ANTE, NTIS, CEABA-VTB, CONFSCI, EMA, ENTEC, FEDRIP, RDISCLOSURE, SIGLE' ENTERED AT 12:05:21 ON 03 SEP 2004

L3 QUE SIO(W) N OR (SI OR SILICON) (A) ((O OR OXIDE# OR OXYNITRIDE#) (A) (N OR NITRIDE# OR OXYNITRIDE#)) OR L2 OR SION INT/CHI OR SI(S) O(S) N/CHI(L) ELC=3

L4 QUE (DEFCT OR DEFECT? OR SMOOTH? OR PARTICLE# OR ROUGH? OR HALAT? OR HALO OR HALOS OR HALOES)

L5 QUE SIN OR SI3N4 OR L1 OR SIN INT/CHI OR SI3N4/CHI

L6 QUE L3 AND L4 AND L5

L7 QUE ANTIREFLECT? OR ANTI(W) REFLECT? OR ANTIGLAR### OR ARC OR ARL OR DARC OR BARC OR BAR OR (PHOTOABSOR##### OR ((PHOTO# OR RADIATION OR LIGHT) (W) ABSOR##### OR AR)) (W) (MATERIAL? OR FILM# OR COAT#### OR LAYER####)

L8 QUE L6 AND L7

FILE 'HCAPLUS, PASCAL' ENTERED AT 12:22:10 ON 03 SEP 2004

L9 19 S L8

L10 19 DUP REM L9 (0 DUPLICATES REMOVED)

L11 14 S L10 AND P/DT

L12 3 S L10 NOT P/DT NOT PD>19980610

INDEX 'WPIX, EUROPATFULL, PCTFULL, FRFULL, FSTA, JAPIO, PATDPAFULL, PATOSEP, PIRA' ENTERED AT 12:54:15 ON 03 SEP 2004

0* FILE WPIX

22* FILE EUROPATFULL

41* FILE PCTFULL

0* FILE FRFULL

0* FILE FSTA

0* FILE JAPIO

0* FILE PATDPAFULL

0* FILE PATOSEP

0* FILE PIRA

L13 QUE L8

FILE 'PCTFULL, EUROPATFULL' ENTERED AT 13:01:43 ON 03 SEP 2004

L14 64 S L13

L15 64 DUP REM L14 (0 DUPLICATES REMOVED)

L16 18 S L15 AND AD<19980610